

PORTABLE INFORMATION PROCESSING APPARATUS

This is a division of application Ser. No. 08/467,754 filed Jun. 6, 1995, now U.S. Pat. No. 5,719,799.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a portable information processing apparatus.

2. Description of the Related Art

In recent years portable information processing apparatuses including, a notebook personal computer (having a standard pocket book size), a subnotebook size personal computer (having a size smaller than the ordinary notebook size), an electronic notebook (having a standard pocketbook size or palm size), and the like have become known well. The information processing ability and the packing density of these portable information processing apparatuses are increasing year by year, and the number of functions of these portable information processing apparatuses is also increasing.

Very small sized portable information processing apparatuses such as the above described subnote type personal computer, the electronic pocketbook, and the like, each having a function for treating an image information, have also been developed. Further, information processing apparatus which processes image information inputted therein as digital data and which also has a photographing function portion for performing photographing, has also been proposed.

Japanese Utility Model Application KOKOKU publication No. 6-15316 (published on Apr. 20, 1994) discloses an apparatus entitled an electronic memorandum having a photographing apparatus. This apparatus has a light collecting device for collecting light on an imaging surface of a charge coupled device, with the collecting device being arranged at a position near to a liquid crystal display surface of an electronic memorandum (electronic pocketbook). The Japanese Utility Model Application KOKOKU publication No. 6-15316, however, does not disclose features such as how an operating portion for setting a photographing action mode in the apparatus is constructed and how a user may recognize whether or not the photographing action mode is set.

In electronic still cameras, which are essentially apparatuses for photographing, miniaturization and multi-functioning have progressed, and electronic still cameras with a reproducing device for reproducing an image after it is photographed have been proposed.

Japanese Utility Model Application KOKOKU publication No. 7-3735 (published on Jan. 30, 1995) discloses an apparatus entitled as a camera with a reproducing apparatus. This apparatus, like an electronic pocketbook, has a hinge portion and two portions which are rotatable around the hinge portion so that the two portions can be opened and closed with respect to each other. The two portions are constructed by a housing divided into two portions of a display device portion and a recording/reproducing portion. In this apparatus, a photographing can be performed through a photographing window provided on one end surface side of the hinge portion when the display device portion is pivoted to a closed position at which the display device portion overlaps the recording/reproducing device, and a reproduction of a recorded image can be performed through

a reproducing display of the display device portion when the display device portion is pivoted to move away from an upper surface of the recording/reproducing portion so that the display device and the recording/reproducing device are arranged at a right angle with respect to one another. A limit switch for detecting whether the display device portion and the recording/reproducing portion are in an open state or in the closed state is provided. When the open state is detected, this electronic still camera automatically changes its action mode to a reproducing action mode. The apparatus disclosed in the Japanese Utility Model Application KOKOKU publication No. 7-3735, however, does not respond to a recent strong desire for an electronic still camera for photographing and reproducing a recorded image which has various information processing functions and a photo-graphing function and which has a superior operability.

SUMMARY OF THE INVENTION

According to the present invention, there is provided a portable information processing apparatus which comprises a first member, a second member, and a hinge member.

The first member is provided with an information display unit and has an outer surface in which the information display unit is exposed. The second member is provided with an information input unit and has an outer surface in which the information input unit is exposed. The hinge member pivotally connects the first and second members with each other so that the first and second members can be pivotable between a portable position, where the first and second members overlap each other while the outer surface of the first member exposing the information display unit and the outer surface of the second member exposing the information input unit oppose each other, and an open position, where the outer surfaces of the first and second members are moved away from each other to separate the first and second members from each other.

The apparatus of the present invention further comprises an angle detector for detecting an angle of substantially 180° or 360° between the first and second members while the first and second members are rotated in the open position, and a photographing unit which can perform photographing when the angle of substantially 180° or 360° between the first and second members is detected by the angle detector.

In this aspect, the portable information processing apparatus of the present invention is essentially distinct from the above described conventional electronic still camera (Japanese Utility Model Application KOKOKU publication No. 7-3735).

In particular, the photographing unit of the present invention can perform photographing when the angle of substantially 180° or 360° between the first and second members is detected by the angle detector. This feature is not disclosed in the Japanese Utility Model Application KOKOKU publication No. 7-3735.

In the above described aspect of the present invention, the photographing unit can be provided in the hinge member, and the first or second member can be provided with a microphone.

When the first member is provided with an electronic flash, the second member can be provided with an information processing unit.

Alternatively, when the first member is with an information processing unit, the second member can be provided with an electronic flash.

In the above described aspect of the present invention, the photographing unit is provided in the first member. In this case, the second member may be provided with a microphone.